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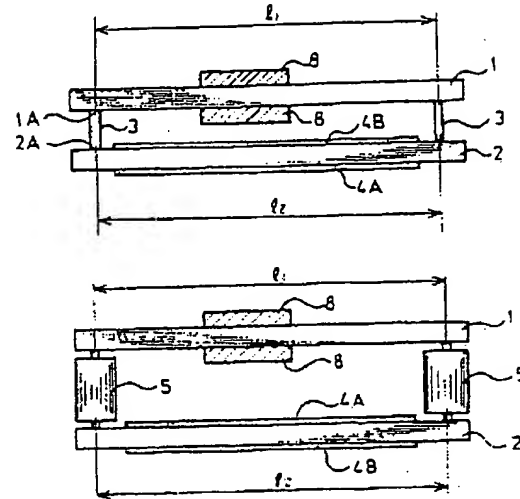
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TITLE : STATOR OF SURFACE WAVE LINEAR MOTOR



ABSTRACT : PURPOSE: To form a linear motor which utilizes supersonic wave by combining an elastic unit vibrated by a piezoelectric unit and an elastic unit for moving a movable element via a coupler or a resonator, and equalizing a mechanical impedance at the coupling point.

CONSTITUTION: Piezoelectric units 4A, 4B are provided on both side surfaces of a metal elastic unit 2, high frequency voltage by supersonic wave is displaced by 90° or 120° of phase, and applied to form a surface wave combined with lateral and longitudinal vibrations on the surface. An elastic unit 1 for moving a movable element 8 is provided, coupled to an elastic unit 2 via a coupler 3 or a resonator 5, the distance is set to the phase difference of 1/4 of wavelength to cancel the reflecting wave, the mechanical impedance at the coupling point is equalized to transmit the vibrating energy of the unit 2 to the unit 1. Therefore, one traveling wave is generated at the unit 1, and the element 8 is linearly moved by the bending vibration of the unit 1.

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